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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,194	04/01/2004	Johan Frostegard	FROSTEGARD=IC	6446
1444	7590	12/29/2005	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C.			COOK, LISA V	
624 NINTH STREET, NW			ART UNIT	
SUITE 300			PAPER NUMBER	
WASHINGTON, DC 20001-5303			1641	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/814,194	<b>Applicant(s)</b> FROSTEGARD, JOHAN	
	<b>Examiner</b> Lisa V. Cook	<b>Art Unit</b> 1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 1-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/720,967.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>attached</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Status of Claims***

1. Currently claims 1-11 are pending and under consideration.

### ***Priority***

2. The first line of the specification should be updated to include US Patent #6,780,605. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e) or 120. See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. Also, the current status of all nonprovisional parent applications referenced should be included. Please include US Patent #6,780,605.

### ***Drawings***

3. No drawings were filed in this application.

### ***Information Disclosure Statement***

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the examiner on form PTO-892 or applicant on form PTO-1449 cited the references they have not been considered.

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5. The Information Disclosure Statement filed 01 April 2004 has been consider as to the merits prior to first action.
6. The Information Disclosure Statement filed 12 August 2005 has been consider as to the merits prior to first action.
7. The Information Disclosure Statement filed 02 December 2005 has been consider as to the merits prior to first action.

### ***Specification***

8. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

- I. Page 1 of the specification is not numbered. Appropriate correction required.
- II. On page 5 line 24 section 0013 a typo appears "normotensive men the."

Appropriate correction is required.

### ***Claim Objections***

9. Claims 1-11 are objected to because of the following informalities: In claim 1 a typo appears in line 5. The claim recites "PAF and/of of" Is it applicants intent to recite "PAF and/or of". Claims 2-11 are objected to because they depend on claim 1. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The method of claim 1 is vague and indefinite because it is not clear as to how spontaneous abortion will be assessed. The preamble is drawn to the diagnosis of spontaneous abortion, however the body of the claim does not correlate the measurement of antibodies to PAF to spontaneous abortion. In other words, claims 1-11 are vague and indefinite because the methods do not clearly set forth a resolution step, which clearly reads back on the preamble of the claimed method. Please add a correlation (resolution) step to the body of the claim relating to spontaneous abortion in order to obviate this rejection.

B. Claim 1 is vague and indefinite because the method is directed to the diagnosis of spontaneous abortion and it is not clear how the measurement of antibodies to PAF will determine spontaneous abortion if the spontaneous abortion has previously occurred. Is the method directed to measuring the “risk” of spontaneous abortion? As recited the metes and bounds of the claim cannot be determined. Appropriate correction required.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims 1-7 are rejected under 35 U.S.C.103(a) as being unpatentable over Barquinero et al. (Lupus, 1994, 3, 55-58) in view of O'Neill (U.S. Patent#4,879,285).

Barquinero et al. teach an ELISA assay to measure antibodies against platelet-activating factor (PAF) in patients with autoimmune diseases. Specifically blood samples from patients with SLE (systemic lupus erythematosus), PAPS (antiphospholip syndrome), and syphilis were employed. See abstract and page 55 Introduction and page 56 "ELISA technique for anti-PAF".

Although Barquinero et al. teach the reagents required by the claims; they do not specifically teach the use of antibodies to PAF to evaluate spontaneous abortion.

However, O'Neill discloses the link between antibodies to PAF and mammalian pregnancy (fertility control). In this patent, in-vivo and in-vitro administration of PAF enhanced fertilized embryos and improved implantation in the uterus of humans and animals. Column 3 lines 1-2. Conversely the reduction of PAF by the administration of antibodies to PAF resulted in a contraceptive effect. See abstract and column 2 lines 17-23. Antibodies to PAF are taught to be neutralizers of PAF thus resulting in a potential contraceptive action. Column 3 line 19-21 and lines 33-34.

It would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to take the anti-PAF detection assay systems as taught by Barquinero et al. and employ them to evaluate spontaneous abortions (pregnancy loss or contraceptive action) as exemplified in the patent of O'Neill because O'Neill taught that antibodies to PAF are neutralizers of PAF thus resulting in a potential contraceptive action. Column 3 line 19-21 and lines 33-34. The administration of PAF enhanced fertilized embryos and improved implantation in the uterus of humans and animals. Column 3 lines 1-2. While the reduction of PAF by the administration of antibodies to PAF resulted in a contraceptive effect. See abstract and column 2 lines 17-23. Accordingly one of ordinary skill in the art would have employed the measurement of antibodies to PAF to evaluate pregnancy or spontaneous abortions.

III. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barquinero et al. (Lupus, 1994, 3, 55-58) in view of O'Neill (U.S. Patent#4,879,285) and further in view of Karasawa et al.(Lipids, Vol. 26, No. 12, 1991, pages 1122-1125).

Please see Barquinero et al. in view of O'Neill as set forth above.

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Barquinero et al. in view of O'Neill differ from the instant invention in not specifically teaching the detection of various known naturally occurring (antigens to aPAF) phospholipids related to PAF(phospholine). These forms include lyosPAF, PC(phosphatidylcholine), and lysoPC(lysophosphatidylcholine).

However, Karasawa et al. disclose systems to detect antibodies to PAF. The reference further evaluates related phospholipids (PC, lysoPC, lysoPAF, PE, PS, PG, PI, PA, SM, and CL). See abstract. Each phospholipids reacts differently with regard to binding antibodies to PAF. In some instances the related phospholipids cross react with PAF antibodies. See page 1123 Results. This cross-reaction could result in erroneous results in PAF antibody levels.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use various known PAF related phospholipids to evaluate cross reactivity and allow for accurate detection of PAF antibodies as taught by Karasawa et al. in the method of Barquinero et al. (Lupus, 1994, 3, 55-58) in view of O'Neill (U.S. Patent#4,879,285) because Karasawa et al. disclosed that these related PAF phospholipids could possible cross-react with PAF. See page 1125.

One having ordinary skill in the art would have been motivated to do this to account for cross-reactivity and provide accurate detection of aPAF (antibodies to PAF).

12. For reasons aforementioned, no claims are allowed.



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***Remarks***

13. Prior art made of record and not relied upon is considered pertinent to the applicant's disclosure:

A. Baldo et al. (LIPIDS, Vol26, No.12, 1991, 1136-1139) teach an immunoassay technique to measure PAF

14. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group 1641 – Central Fax number is (571) 273-8300, which is able to receive transmissions 24 hours/day, 7 days/week. In the event Applicant would like to fax an unofficial communication, the Examiner should be contacted for the appropriate Right Fax number.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa V. Cook whose telephone number is (571) 272-0816. The examiner can normally be reached on Monday - Friday from 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le, can be reached on (571) 272-0823.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 1600 whose telephone number is (571) 272-1600.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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*12/12/05*